



- b. John-i        **Mary-ekey**   **phal-ey**<sup>3</sup>   cwusa-lul        noh-ass-ta.        (MDC)  
 John-NOM   Mary-DAT   arm-DAT   injection-ACC   put-PAST-DEC  
 ‘John gave an injection to Mary in the arm.’
- c. **John-i**        **emeni-ka**<sup>4</sup>        uysa-i-si-ta.        (MNC)  
 John-NOM   mother-NOM   doctor-COP-HON-DEC  
 ‘It is John whose mother is a doctor.’

This paper is an attempt to offer a new and a relatively unified account of the EPCs in Korean. More specifically, it aims to provide answers to the following questions:

- (i) What is the source of the extra Cases in each type of EPC in Korean?
- (ii) What is the grammatical status of the bold-faced elements in (2)?
- (iii) Are there any constraints on the EPCs in Korean? If so, what are they?

In section 2, I introduce a set of problems that Korean EPCs present to any theory of syntax or semantics, synthesizing what has been said about them in the literature. In section 3, I offer a new syntactic analysis of Korean EPCs, which is similar to but also differs from what authors like Yoon (1989) have proposed. In this section, building on the insights of Schütze (1996) and Sohn (1994), I first propose an analysis under which the extra “Cases” in each EPC are treated as focus markers. I then explain the linear order restriction on PRs and their PMs, as well as some other restrictions imposed on PMs. In section 4, I discuss the semantics of Korean EPCs, proposing a possible formal semantic analysis which resorts a type-shifting of the sentential predicate of an EPC. After this, I turn to identifying semantic restrictions on Korean EPCs. In this process, I show that the Korean EPCs under discussion cannot be fully accounted for without considering some pragmatic or cognitive factors. Finally, I conclude the paper in section 5, briefly reviewing the proposed analysis in comparison with previous analyses, addressing some remaining issues.

## 2 Problems posed by Korean EPCs

In this section, I present problems posed by Korean EPCs which have been discussed in the literature.

### 2.1 No restriction on the number of PM arguments

As noted by numerous authors (Choe 1987; Kim 1989, 1990; Yoon 1989, 1990; Maling and Kim 1992; Cho 1998, among others), there is in principle no limit to the number of PM arguments that can appear in Korean EPCs, provided that two adjacent NPs stand in a PR and PM relationship. This is illustrated in (3). Here, the first nominal is the PR of the next nominal, which is in turn the PR of the following one, and so on and so forth. I should also note that there is an intonational break between the PR and PM nominals, as indicated by a comma, though I will not indicate this in the data that appear after (3) in this paper to

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<sup>3</sup> The case particle *-ey* in Korean is also used as a locative case marker. But Maling and Kim (1992:43) analyze it as a dative marker, based on the fact that *-ekey* and *-ey* are in complimentary distribution depending on the animacy of the nominal they combine with: *-ekey* always occurs with animate nouns whereas *-ey* occurs with inanimate ones. In this paper, following their analysis, I take these two case particles as “allomorphs” of the same morpheme, i.e., a dative case particle.

<sup>4</sup> Note that in Korean, there are three morphophonemic variations of the nominative case particle: *-i*, *-ka*, and *-ika*.

abstract away from the roles such pauses may play in analyzing the syntax and semantics of EPCs in Korean. So, the reader should read all the sentences instantiating the EPCs in Korean presented below by putting pauses between each PR and its PM.

- (3) a. John-i        **Mary-lul, phal-ul, oynccok-ul, kkut-ul**    ttayli-ess-ta.  
 John-NOM    Mary-ACC    arm-ACC    left-ACC    end-ACC    hit-PAST-DEC  
 ‘John hit Mary on the left end of the arm.’
- b. John-i        **Mary-ekey, phal-ey, oynccok-ey, kkut-ey**    cwusa-lul  
 John-NOM    Mary-DAT    arm-DAT    left-DAT    end-DAT    injection-ACC  
 put-ass-ta.  
 give-PAST-DEC  
 ‘John gave an injection to Mary in the left end of the arm.’
- c. John-i        **emeni-ka,        kohyang-i**        seoul-i-si-ta.  
 John-NOM    mother-NOM    hometown-NOM    Seoul-COP-HON-DEC  
 ‘It is John whose mother’s hometown is Seoul.’

## 2.2 Linear order between a PR and a PM

In Korean EPCs, a PR must occur preceding its PM, as shown in (4)-(5).

- (4) a. John-i        **Mary-lul    phal-ul**        ttayli-ess-ta.        (PR > PM)  
 John-NOM    Mary-ACC    arm-ACC        hit-PAST-DEC  
 ‘John hit Mary on the arm.’
- b. \*John-i        **phal-ul    Mary-lul**        ttayli-ess-ta.        (PM > PR)  
 Intended: ‘John hit Mary on the arm.’
- (5) a. John-i        **Mary-lul    phal-ul    oynccok-ul    kkut-ul**        ttayli-ess-ta.  
 John-NOM    Mary-ACC    arm-ACC    left-ACC    end-ACC    hit-PAST-DEC  
 ‘John hit Mary on the left end of the arm.’
- b. \*John-i        **Mary-lul    oynccok-ul    phal-ul    kkut-ul**        ttayli-ess-ta.<sup>5</sup>  
 Intended: ‘John hit Mary on the left end of the arm.’
- c. \*John-i        **Mary-lul    oynccok-ul    kkut-ul    phal-ul**        ttayli-ess-ta.  
 Intended: ‘John hit Mary on the left end of the arm.’

Based on data like (4)-(5), one may suspect that in each EPC, the PR and the PM form a single nominal constituent (and there is some sort of case spreading happening between them). But the data in (6) show that they do not, because adverbs and other types of adverbials can occur intervening them.

(6) Intervention by a manner adverb:

- a. John-i        Mary-lul    phal-ul        **sekey**        ttayli-ess-ta.  
 John-NOM    Mary-ACC    arm-ACC        hard        hit-PAST-DEC
- b. John-i        Mary-lul        **sekey**        phal-ul        ttayli-ess-ta.  
 John-NOM    Mary-ACC        hard        arm-ACC    hit-PAST-DEC  
 ‘John hit Mary hard on the arm.’

<sup>5</sup> This sentence will be judged fine if it is construed as meaning that John hit the left part of Mary’s body and that was the end of her arm, but that is not the intended meaning here.

(7) Intervention by a temporal adverbial:

- a. John-i            **ecey**            Mary-lul            phal-ul            ttayli-ess-ta.  
 John-NOM        yesterday        Mary-ACC        arm-ACC        hit-PAST-DEC
- b. John-i            Mary-lul        **ecey**            phal-ul            ttayli-ess-ta.  
 John-NOM        Mary-ACC        yesterday        arm-ACC        hit-PAST-DEC
- ‘Yesterday John hit Mary on the arm.’

(8) Intervention by a locative adverbial:

- a. John-i            Mary-lul            phal-ul            **kyosil-eyse**        ttayli-ess-ta.  
 John-NOM        Mary-ACC        arm-ACC        classroom-in    hit-PAST-DEC
- b. John-i            Mary-lul            **kyosil-eyse**        phal-ul            ttayli-ess-ta.  
 John-NOM        Mary-ACC        classroom-in    arm-ACC        hit-PAST-DEC
- ‘John hit Mary on the arm in the classroom.’

### 2.3 Case (dis)agreement between PRs and PMs

Several authors have claimed that a PR and its PM in a Korean EPC must agree in Case (e.g., Chun 1985; Choe 1987; Kim 1989, 1990; Yoon 1989, 1990; Cho 1998; Nakamura 1999). However, Maling and Kim (1996) have pointed out that this is not necessarily the case. To illustrate, (9c) shows that even when the cases of the PR and the PM differ from each other, the sentence is still judged to be grammatical.

- (9) a. John-i            **Mary-ekey**        **phal-ey**        cwusa-lul            noh-ass-ta.  
 John-NOM        Mary-DAT        arm-DAT        injection-ACC    put-PAST-DEC
- b. John-i            **Mary-lul**            **phal-lul**        cwusa-lul            noh-ass-ta.  
 John-NOM        Mary-ACC        arm-ACC        injection-ACC    put-PAST-DEC
- c. John-i            **Mary-lul**            **phal-ey**        cwusa-lul            noh-ass-ta.  
 John-NOM        Mary-ACC        arm-DAT        injection-ACC    put-PAST-DEC
- ‘John gave an injection to Mary in the arm.’

Notably, similar facts obtain in ECM constructions in Korean, where the subject of the embedded clause is raised to the object position of the matrix clause, surfacing with an accusative case (ACC) marking as a result. To see this, consider (10).<sup>6</sup>

- (10) John-i            **May-lul**            **elkwul-i**        yeppu-ta-ko            sayngkakha-n-ta.  
 John-NOM        Mary-ACC        face-NOM        be.pretty-IND-COMP    think-IMPRF-DEC
- ‘John thinks of Mary that she has a pretty face.’

In this example, the PR *Mary* and the PM *elkwul* surface without agreeing in Case. If Case agreement is indeed one of the defining characteristics of Korean EPCs, then the data in (9)-(10) cannot be explained. Hence, a more accurate description of the Case phenomenon in Korean EPCs seems to be that the PR and the PM do not have to agree in Case, though they often do.

<sup>6</sup> I thank Ellen Woolford for suggesting that I look at this type of data.

## 2.4 The grammatical statuses of a PR and the PM in a Korean EPC

In the literature, it has been reported that there is an asymmetry between a PR and the PM in a Korean EPC with regards to their grammatical status (e.g., Kim 1989, 1990; Yoon, 1989, 1990; Cho 1998; Yoon 1998): a PR in an EPC behaves like an ordinary core grammatical element in that it can undergo (i) scrambling, (ii) relativization, and (iii) passivation. By contrast, a PM acts like a non-core grammatical element in that it fails all such diagnostics. To see this, compare the (a) and the (b) sentences in (11)-(13).

(11) Scrambling:

- a. **Mary<sub>i</sub>-lul** John-un **t<sub>i</sub>** phal-ul ttayli-ess-ta. (PR)  
 Mary-ACC John-TOP arm-ACC hit-PAST-DEC  
 ‘John hit Mary on the arm.’
- b. \***phal-i-ul** John-un Mary-lul **t<sub>i</sub>** ttayli-ess-ta. (PM)  
 arm-ACC John-TOP Mary-ACC hit-PAST-DEC  
 Intended: ‘John hit Mary on the arm.’

(12) Relativization:<sup>7</sup>

- a. [John-i **t<sub>i</sub>** phal-ul ttayli]-n **Mary<sub>i</sub>-nun** ... (PR)  
 [John-NOM arm-ACC hit]-REL Mary-TOP  
 ‘Mary, who John hit on the arm, ...’
- b. \*[John-i Mary-lul **t<sub>i</sub>** ttayli]-N **phal-i-un** ... (PM)  
 [John-NOM Mary-ACC hit]-REL arm-TOP  
 Intended: ‘Mary, who John hit on the arm, ...’

(13) Passivizability:

- a. **Mary-ka** John-eykey phal-ul mac-ass-ta.<sup>8</sup> (PR)  
 Mary-NOM John-by arm-ACC bitten-PAST-DEC  
 ‘Mary got hit on the arm by John.’
- b. \*Mary-ka John-eykey **phal-i** mac-ass-ta. (PM)  
 Mary-NOM John-by arm-NOM bitten-PAST-DEC  
 Intended: ‘Mary got hit on the arm by John.’

When it comes to passivization data, however, the facts are not so cut and dried. As Maling and Kim (1992:50) note, for reasons not so well understood at this point, it is sometimes possible to passivize a PM. This is illustrated in (14), which is adapted from Maling and Kim (1992: 50, ex. (26)-(27)).

- (14) a. Ku ai-ka John-eykey **pal-i/lul** palp-hi-ess-ta. (PM)  
 That child-NOM John-by foot-NOM/ACC stomp-PASS-PAST-DEC  
 Intended: ‘The child was stomped on the foot by John.’
- b. Ku namwu-ka **kaci-ka/\*lul** cal-li-ess-ta. (PM)  
 that tree-NOM branch-NOM/ACC cut-PASS-PAST-DEC  
 Intended: ‘That tree’s branches were trimmed, not a different one.’

<sup>7</sup> For simplicity, I assume a head raising analysis of Korean externally headed relative clauses here, but adopting an operator movement analysis would not make any difference in appreciating the paradigm.

<sup>8</sup> Note that *mass-* ‘to be bitten’ is a lexically passive verb.

These data show that PMs *can* be passivized, or passivization is sometimes even necessary for them, as it appears to be the case in (14b). If this is an accurate generalization of the facts, then it can be taken to suggest that a PM in an EPC does not entirely lack an argument status.

Further evidence for the partly argument-like status of PMs comes from the fact that an external possession sentence becomes ungrammatical if the PM is omitted. To see this, consider (15)-(16).

(15) MAC:

- a. John-i        **Mary-lul**    \*(**phal-ul**)        pule-ttuli-ess-ta.  
 John-NOM    Mary-ACC    arm-ACC        break-CAU-PAST-DEC  
 Intended: ‘John broke Mary’s arm.’
- b. John-i        **Mary-lul**    \*(**os-ul**)        ccic-ess-ta.  
 John-NOM    Mary-ACC    clothes-ACC    tear.apart-PAST-DEC  
 Intended: ‘John tore Mary’s clothes.’

(16) MNC:

- a. **John-i**        \*(**meli-ka**)        coh-ass-ta.  
 John-NOM    head-NOM    be.good-PST-DEC  
 Intended: ‘John is smart.’ (More literally: ‘John’s brain is good.’)
- b. **Mary-ka**        \*(**mok-i**)        kil-ta  
 Mary-NOM    neck-NOM    be.long-DEC  
 Intended: ‘Mary has a long neck.’
- c. **Mary-ka**        \*(**emeni-ka**)        tolaka-si-ess-ta  
 Mary-NOM    mother-NOM    pass.away-HON-PAST-DEC  
 ‘It is Mary whose mother passed away.’

## 2.5 The categorial status of PMs

Numerous authors (particularly Kim 1989; Yoon 1989; Cho 1998; and Yoon 1998) have argued that a PM is a non-referential element, so it cannot be modified or extracted. On this basis, Yoon (1989) claims that PMs are N-bar-level species. However, I would like to challenge his claim by drawing the reader’s attention to the following data:

- (17) a. John-i        **Mary<sub>1</sub>-lul**    [[**t<sub>1</sub> t<sub>2</sub> tachi**]-n        **phal<sub>2</sub>]-ul**    ttayli-ess-ta.  
 John-NOM    Mary-ACC    [[\_ \_ injured]-REL    arm]-ACC    hit-PAST-DEC  
 ‘John hit Mary on the injured arm.’<sup>9</sup>

<sup>9</sup> Some Korean speakers may find (17a) to be a bit marginal, but this sentence becomes perfectly good if *Mary* is replaced by *na* ‘I-ACC’, as shown below:

- (i) a. John-i        **na<sub>1</sub>-lul**    [[**t<sub>1</sub> t<sub>2</sub> tachi**]-n        **phal<sub>2</sub>]-ul**    ttayli-ess-ta.  
 John-NOM    I-ACC    [[\_ \_ injured]-REL]    arm-ACC]    hit-PAST-DEC  
 ‘John hit me on the injured arm.’

I suspect that some pragmatic factor such as *point of view* may be responsible for the difference between (17a) and (i) if there is indeed any grammaticality difference between them, although verifying this idea must be left for future research.

- b. John-i        Mary-lul    [ku    [t<sub>1</sub>    sangchena]-n    kos<sub>1</sub>]]-ul  
 John-NOM    Mary-ACC    [that    [    scratched]-REL    part<sub>1</sub>]]-ACC  
 kkocip-ess-ta.  
 pinch-PAST-DEC  
 ‘John pinched Mary on that scratched/wounded part of her body.’
- c. **Ku    cha-ka    [motun pakhwy]-ka    kocangna-ass-ta.**  
 that    car-NOM    [every    tire]-NOM    break-PAST-DEC  
 ‘It is that car whose tires are all flat.’

The data in (17) are illuminating in several respects. First, both (17a) and (17b) exemplify that PMs in Korean EPCs *can* be modified by relative clauses. Second, (17b) shows that PMs can be “closed off” by a determiner if demonstratives in Korean are determiners, as standardly assumed in the literature (e.g., Sohn 1994). Third, (17c) illustrates that PMs can be even quantificational. Taken together, these facts suggest that PMs are better analyzed as full DPs, rather than N-bar-level intermediate categories, contra authors like H.-S. Yoon (1989, 1990) and J.-M. Yoon (1998).

Before closing this section, I would like to add one additional argument for the DP status of PMs. In the standard Case theory (e.g., Chomsky 1995; Ellen Woolford, p.c.), only full DPs can surface with a Case-marking on them. And crucially, PMs in Korean EPCs *do* surface with a case-marker on them, as illustrated above. Hence, there is yet another reason to rethink an intermediate category analysis of them.

## 2.6 Summary

In this section, I have outlined several notable properties of Korean EPCs, which can be summarized as follows:

- (18) Problems presented by Korean EPCs:
- (i) In Korean EPCs, “extra” nominals can occur, beyond the number of arguments the lexical predicate of the sentence can ordinarily take, *if* each pair of them stand in a PR and a PM relation.
  - (ii) It is not necessary for the PR and the PM to agree in Case.
  - (iii) Even though Korean is a relatively free word order language, a PR and its PM always occur in ‘PR > PM’ order, but they need not be adjacent to each other.
  - (iv) Between a PR and its PM, the former behaves more like a true argument of the sentential predicate, but the latter also exhibits some argument-like behavior as well.
  - (v) There is reason to think that PMs are full DPs, just like their PRs.

Having introduced these problems, in the next section, I address the following more specific syntactic questions:

- (19) More specific questions to be addressed in the next section:
- (i) What is the source of the “extra” Cases that are borne by PMs or PRs?
  - (ii) Why do a PR and its PM sometimes disagree in Case?
  - (iii) Why is there a fixed linear order between a PR and its PM?
  - (iv) Why are there restrictions on the extraction and passivization of PMs?

- (v) What is the syntactic structure of each type of EPC?

### 3 The syntax of Korean EPCs

In this section, I first take up the Case related problems. I then account for why there should be syntactic restrictions on PMs. Finally, I propose a possible syntactic structure for each type of Korean EPCs by treating a PM as a DP complement of the sentential predicate of an EPC.

#### 3.1 How to account for the multiple “Case” phenomena?

Following Schütze (1996) and Sohn (1994), I argue that some of the occurrences of seemingly structural case particles in EPCs are actually *focus* markers. I offer three arguments for this line of analysis.

The first argument comes from the fact that a PR and its PM in an EPC do not have to agree in Case, as we have observed in (9c) and (10). If the particles they bear are both Case markers, then we must stipulate that the PR and the PM of an EPC always agree in Case, as has been suggested by Kim (1989, 1990). But if we impose any type of Case concord restriction on them, then we cannot account for *when* they must agree in Case and when not. In contrast, if we treat *-i/ka* and *-ul/-lul* in Korean as ambiguous between Case markers and focus markers, as argued by Schütze (1996: 357), then we can more readily account for seemingly problematic data like (9c) and (10). In brief, a PR and its PM need not agree in Case because while one of them bears a structural case marker, the other actually bears a focus marker.

The second argument for treating some occurrences of seemingly structural cases in Korean EPCs as focus markers comes from data like (20).

- (20) a. **John-i**        **emeni-ka**        **kohyang-i**        seoul-i-si-ta.  
       John-NOM    mother-NOM    hometown-NOM    Seoul-COP-HON-DEC  
       ‘It was John whose mother’s hometown was Seoul.’
- b. John-i        **Mary-lul**        **phal-ul**        **cwungkan-ul**    cap-ass-ta.  
       John-NOM    Mary-ACC        arm-ACC        middle-ACC        grab-PAST-DEC  
       ‘John grabbed Mary in the middle of her arm.’

In (20a), three nominals occur bearing what appears a nominative case (NOM), but in generative grammar, a tensed INFL or a finite T can license just one NOM (see Haegeman 1994; Chomsky 1995), so the source of such “extra” NOMs remains mysteries. Similarly, in (20b), three nominals occur bearing what appears to be an ACC. But a transitive verb can assign maximally two ACCs even if we assume a VP shell structure, following Larson (1988), so at least one of the “extra” ACCs in (20b) is unaccounted for. On the other hand, if we assume that, except for one, all occurrences of structural cases in (20a) or (20b) are focus particles which happened to be homophonous with a NOM or an ACC particle, then we don’t have to change anything about how Case licensing is done.

That said, in order to provide additional support for an ambiguity analysis of NOMs or ACCs in Korean EPCs, we need to first decide which of the three nominals in (20a) or (20b) is the true argument of the sentential predicate. According to my intuition, in (20a), the true argument of the sentential predicate is *kohyang* ‘hometown’ because the predicate’s meaning holds true of it. And since the copula occurs with a past tense



morpheme on it, we can assume that this sentence contains a finite INFL, which assigns NOM to this nominal.

Under this way of looking at things, then the other extra NOMs in (20a) cannot be NOMs. More concretely, the particle *-i*, which occurs on the first nominal *John*, is construed as a focus marker, and this agrees with Korean speakers' intuition that this nominal carries an identificational focus meaning. As for the second nominal *emeni-ka*, this apparent NOM marker cannot be a case marker either because the only NOM that the tensed INFL can assign is already absorbed by *kohyang*. Therefore, if we posit that what appears to be a Case particle in Korean can only be two-ways ambiguous, then the *-ka*, which occurs on *emeni*, has to be a focus particle as well. And this agrees with Korean speakers' intuition that this nominal is part of all new information.

The last argument for treating some of the "Case" particles in Korean EPCs as focus particles comes from so-called case stacking phenomenon. To see this, first consider (21).

- (21) a. **Yelsoy-ka na-hanthey-ka iss-ta.**  
 key-NOM I-DAT-NOM exist-DEC  
 'It is me who has the key.'
- b. Na-nun **Mary-lul han sikan-tongan-ul manna-ss-ta.**  
 I-TOP mary-ACC one hour-DUR-ACC meet-PAST-DEC  
 'I met Mary for an hour (as opposed to two hours)' or 'It was Mary that I met for an hour.'
- c. John-i **mwulkoki-lul sey-mali-lul cap-ass-ta.**  
 John-NOM fish-ACC three-CL-ACC catch-PAST-DEC  
 'John caught three fish (as opposed to two).'

Notably, the relative order between these stacked "cases" is fixed, as shown in (22): the oblique case particle must always occur *preceding* what appears to be a structural case particle.

- (22) a. \*Yelsoy-ka **na-ka-hanthey iss-ta.** (NOM < DAT)  
 key I-NOM-DAT exist-DEC  
 Intended: 'It is me who has the key.'
- b. \*Na-nun Mary-lul han **sikan-ul-tongan manna-ess-ta.** (ACC < DUR)  
 I-TOP mary-ACC one hour-ACC-DUR meet-PAST-DEC  
 Intended: 'I met Mary for an hour (as opposed to two hours).'

I take these empirical facts to suggest that the *-ka* and the *-lul*, which occur on the *second* nominals of (21a) and (21b), are focus markers, not Case markers, as reflected in the English translations of the sentences. I further argue that, in addition to NOM and ACC markers, the dative (DAT) marker in Korean can also function as a focus marker. Therefore, under the present analysis, MACs, MNCs, and MDCs all receive similar treatments.

At this point, one may wonder whether it is possible to make a generalization about under what circumstances *-i/ka* (i.e., NOM) is chosen over *-ul/lul* (i.e., ACC) as a focus marker. Schütze (1996: 363) offers the following generalization:

- (23) The *-ka* versus *-lul* focus-marking (Schütze 1996: 363):  
 i) *-lul* focus-marks an object of a transitive V.  
 ii) otherwise, *-ka* marks a focused element, being the *default* focus marker.

What Schütze (1996) offers is elegant, but it raises the question of why Case stacking of two NOMs, two ACCs, or a stacking of a NOM over an ACC or vice versa, is not attested, where one is a structural case marker and other is a focus marker. Given this, I would like to offer the following constraint on Korean cases.

- (24) In Korean, structural case markers are overridden by a focus marker, but oblique case markers are not.

Under the analysis I have just proposed, then, Korean EPCs are predicted to be ambiguous. And this prediction is borne out, as the differing English glosses and translations for the seemingly string-identical sentence in (25) show. (Here, capitalization indicates stress.)

- (25) a. John-i      **Mary-lul**      **phal-ul**      ttayli-ess-ta.  
 John-NOM Mary-FOC      phal-FOC      hit-PAST-DEC  
 ‘John hit Mary on the arm.’  
 b. John-i      **MARY-lul,**      **phal-ul**      ttayli-ess-ta.  
 John-NOM Mary-FOC      phal-ACC      hit-PAST-DEC  
 ‘It is Mary that John hit on the arm.’  
 c. John-i      **Mary-lul,**      **PHAL-ul**      ttayli-ess-ta.  
 John-NOM Mary-ACC      phal-FOC      hit-PAST-DEC  
 It is on the arm that John hit Mary.’  
 d. Context: In response to someone saying that John hit Sue on the head  
 (Ani.) John-i      **MARY-lul,**      **PHAL-ul**      ttayli-ess-e.  
 No.      John-NOM Mary-FOC      phal-FOC      hit-PAST-DEC.INFRML  
 ‘(No,) John hit Mary (not Sue), and it was on the arm (not on the head).’

Since Korean is a multiple focus language (Choe 1995), the fact that (25d) contains two different focused nominal constituents is not surprising. But I should note that this sentence has a different prosody than (25a) and therefore carries a different type of focus meaning as well. In this context, let me also note that (25a) is uttered in an out-of-the blue context, and the two *-lul*-marked nominals in it are construed as part of all new information, unlike the case with (25d).

### 3.2 Accounting for syntactic restrictions on PMs

In section 2.5, I suggested that PMs in Korean EPCs are full DPs rather than N-bar-level categories. But a full DP analysis of PMs is afflicted by the fact that they cannot be extracted, must occur following their PR, and are not fully passivizable, as we have seen above.

I claim that the first two restrictions come from the same source: a PM must be both syntactically and semantically linked to its PR. Thus, I posit (26) as a construction-specific binding condition for PMs.<sup>10</sup>

- (26) A PM that occurs in an EPC must be bound by its PR, where binding means co-indexation and c-command.

Under the present analysis, then, a more accurate gloss for the MAC in (25a) will be what is given in (27), where a PM and its PR bear the same index, and the PR nominal both precedes and c-commands the PM nominal.

- (27) John-i        **MARY<sub>1</sub>-lul**    **phal<sub>1</sub>-ul**    ttayli-ess-ta.  
 John-NOM    Mary-FOC    arm-FOC    hit-PAST-DEC  
 ‘John hit Mary on the arm.’

Assuming the constraint in (26), we can now begin accounting for some of the restricted syntactic behavior of PMs. For example, the extraction facts we have considered thus far suggest that PMs cannot be extracted. Notably, however, PMs *can* be extracted if they are extracted along with their PRs and the resulting order retains ‘PR > PM’. To see this, consider (28).

- (28) **MARY-lul**,    **MELI-lul**,    John-i        ttayli-ess-ta.  
 Mary-FOC    head-FOC    John-NOM    hit-PAST-DEC.  
 Possible reading: ‘John hit Mary. Not only that, he hit her on the head.’  
 (Implicature: It is noteworthy that he hit her on the head.)

In light of (28), we can conclude that movement of PMs can happen in Korean EPCs as long as the outcome adheres to what is stated in (26).

By the same reasoning, we can also account for the relativization facts: the reason why a PM in an EPC cannot be relativized is because, by virtue of occurring as the head noun of the RC, it will end up c-commanding the PR.

As to explaining the passivization facts, however, we need to resort to a slightly different mechanism, and this is the topic of the next subsection, to which we now turn.

### 3.3 The grammatical status of PMs and the syntactic structure of each type of EPC

Some previous work on Korean EPCs has treated PMs as nominal constituents of *chômeur* status, meaning that they have lost their argument status in the process of possessor raising, to put in relational grammar terms (e.g., Chun 1985). Contra such line of analysis, I have suggested, however, that there is reason to treat them as retaining their core grammatical status in the sentences in which they occur. In this section, I argue that some of them are indeed core grammatical elements: they have the status of syntactic *complements* and some even have the status of true arguments of the sentential predicates.

<sup>10</sup> In this paper, I cannot take up how exacting the binding of a PM by its PR is executed; it can be done by the presence of a null category which is present at the specifier position of the PR nominal which bears the same index as the PM that c-commands it. But investigating the exact status of this null element will take us too far afield. Therefore, I leave this important task to future research.

Adopting Williams' (1994) Function Composition Hypothesis, and along the lines of the Theta-Binding Hypothesis by Speas (1990, Ch. 2), Yoon (1989, 1990) and Yoon (1998) have argued that in a Korean EPC, the unsaturated argument of the relational NP is inherited by the verb that it combines with, and as a result, in an MAC like (2a), a PR is theta-marked by its PM, not by the predicate of the sentence. In other words, what semantically licenses a PR is its PM, not the verb.

Building on their insights, yet approaching the matters from a slightly different angle, I propose that, in a Korean EPC, the lexical predicate of the sentence is capable of taking one extra syntactic *complement*, though its inherent argument structure stays the same; however, depending on the inherent argument structure of the lexical predicate, what functions as its true internal argument varies. In short, if the lexical predicate is a mono-transitive like *ttayli-ta* 'to hit', then the highest PR nominal that occurs inside the verb's maximal projection (i.e., VP) functions as its direct object; if the lexical predicate is an intransitive or an adjective like *yeppu-ta* 'to be pretty', then the lowest PM nominal that occurs sister to the predicate functions as its true internal argument.

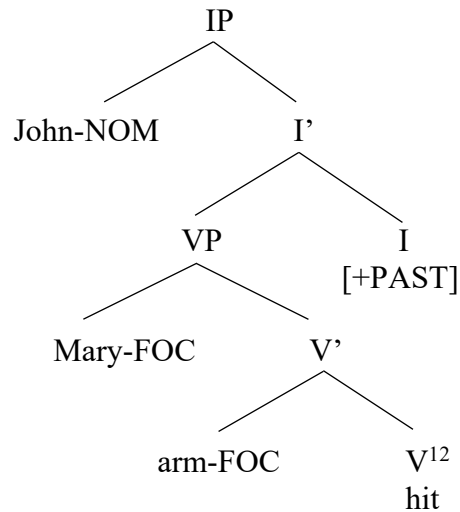
In the end, the syntactic analysis I offer for Korean MACs looks very similar to what authors like Yoon (1989, 1990) have proposed. However, it differs from the existing analyses in two crucial respects. First, it posits that the lexical predicate of an external possession sentence in Korean selects for *maximally two* syntactic DP complements inside the VP, namely, the highest PR and the lowest PM, and it takes *just one* DP object, namely, what occurs as the highest PR. Under the present analysis, then, some of the PR or PM nominals that occur in Korean EPCs will not be considered syntactic complements nor arguments of the lexical sentential predicate; rather, they will be considered syntactic adjuncts. Second, while the previous analyses mentioned above only discuss MACs, the present analysis deals with all three types of EPCs in Korean, giving them a relatively uniform account.

Revising Yoon's (1989, 1990) structural analysis of an MAC, and putting together the ideas outlined above, I thus propose that the syntactic structures of MACs look like what are schematically represented in (29a, b): the difference between (29a) and (29b) is that while the former has two "ACC"-marked nominals, the latter has three. (Note: Here and below, for expository convenience, in the syntactic trees, I will use the English glosses for the Korean lexical categories.<sup>11</sup>)

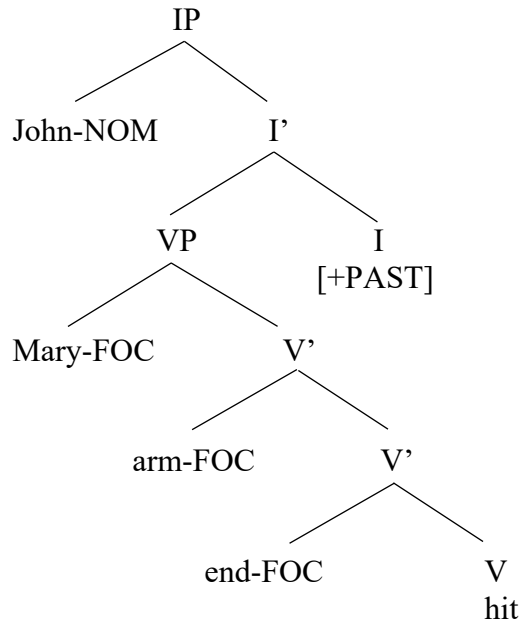
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<sup>11</sup> In addition, I will also abstract away from how exactly syntactic features like Case are checked since such matters are somewhat orthogonal to our immediate concerns here. Besides, the reader can find a relatively sensible account in Schütze's (1996) and Choe's (1995) works.

- (29) a. Structure for MAC *John-i Mary-lul phal-ul ttayli-ess-ta* meaning ‘John hit Mary on the arm’:



- b. Structure for MAC *John-i Mary-lul phal-ul kkul-tul ttayli-ess-ta* meaning ‘John hit Mary on the end of her arm’:

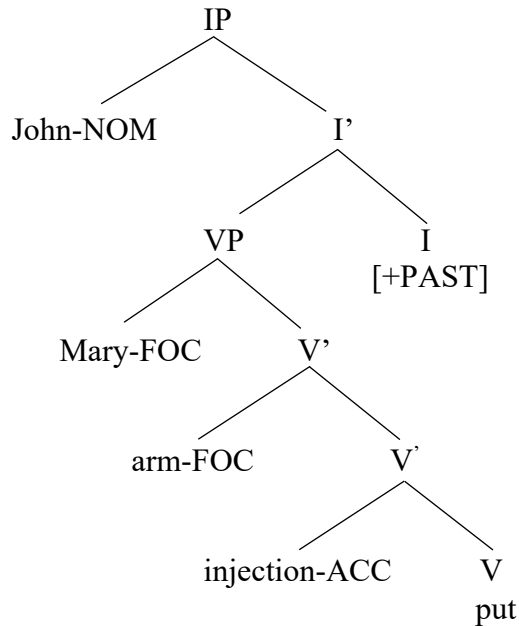


If the syntactic structures I have provided above are correct, then, in both (29a) and (29b), the verb *ttayli-ta* ‘to hit’ takes just one object, namely, *Mary-lul*, but while it takes *phal-ul* and *Mary-lul* as its two syntactic complements in (29a), in (29b), it takes *kkut-ul* and *Mary-lul* as its syntactic complements; that is, in (29b), *phal-ul* is an adjunct.

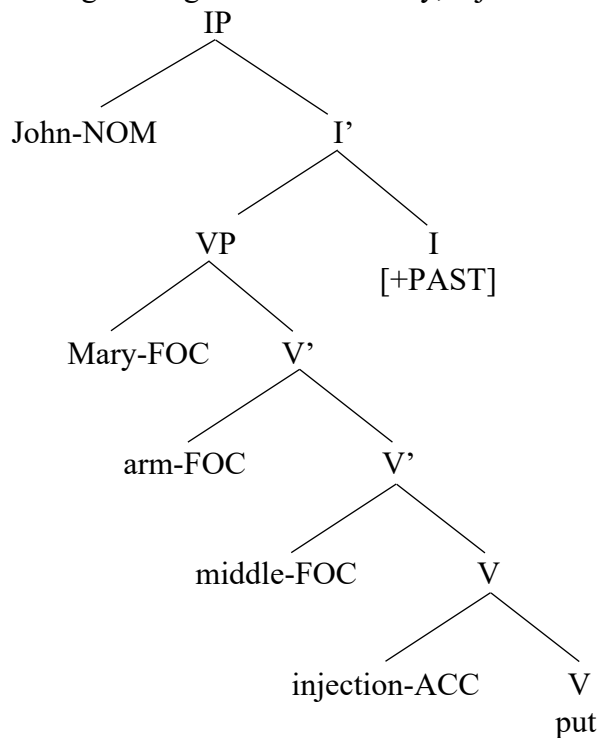
<sup>12</sup> Here and below, I ignore the declarative mood marker *-ta* on the verb. I also assume that the verb later moves to I to have its tense feature checked.

Turning now to the syntax of MDCs, based on essentially the same set of assumptions as above, I propose (30a, b) as the basic structures of some of the most commonly attested MDC sentences.

- (30) a. Structure for MDC *John-i Mary-eykey phal-ey cwu-sa-lul noh-ass-ta* meaning ‘John gave a shot to Mary, injected the needle into her arm’:



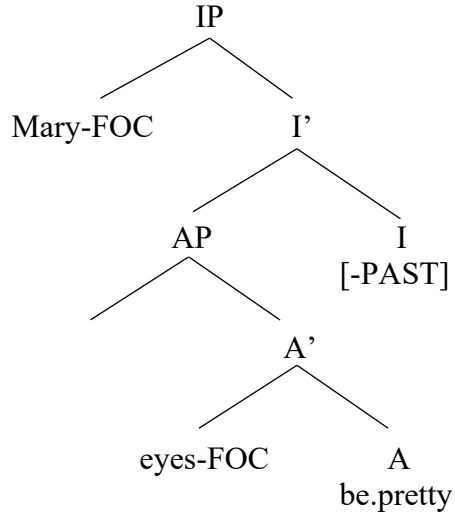
- b. Structure for MDC *John-i Mary-eykey phal-ey cwungkan-ey cwu-sa-lul noh-ass-ta* meaning ‘John gave a shot to Mary, injected the needle into the middle of her arm’:



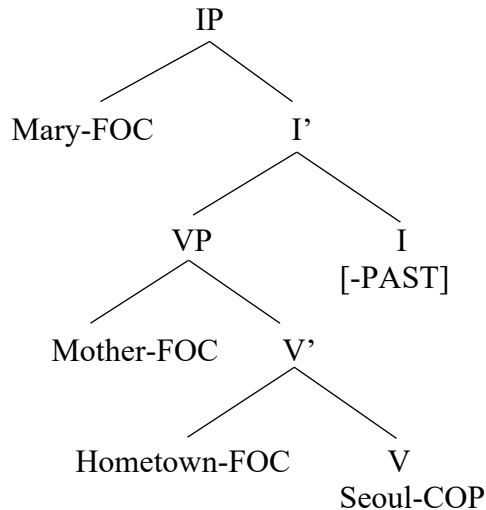
Notably, in (30a, b) too, Mary functions as the true DP object of the verb, which means that the other DAT-marked nominals are syntactic adjuncts. Note that the noun *cwusa* ‘shot’ also surfaces with ACC, but this nominal is not a full DP since it is not referential; along with *noh-ta* ‘to put’, it forms a new lexical verb meaning ‘to inject’.

Finally, turning to the syntax of MNCs: since they always involve intransitive predicates, under the analysis put forth here, they will have syntactic structures that are schematically represented in (31a, b), in which the complement to the adjective (A) or the copular verb (COP) serves as the true argument of the lexical predicate in the end as well.

(31) a. Structure for MNC *Mary-ka nwun-i yeppu-ta* meaning ‘Mary has beautiful eyes’:



b. Structure for MNC *Mary-ka emma-ka kohyang-i Seoul-i-ta* meaning ‘It is Mary whose mom’s hometown is Seoul’:



If these syntactic analyses of Korean EPCs are on the right track, then the next task awaiting us is to provide a semantic account that would be compatible with them. Doing so is one of the purposes of the next section, to which we now turn.

#### 4 The semantics of Korean EPCs

In the previous section, I have proposed that both the PR and the PM of an EPC are arguments of the sentential predicate. In addition, I have provided the syntactic templates for the three types of Korean EPCs. But numerous issues are still left open. First, what is special about the predicates that appear in an EPC? Second, how do the thematic role assignments work? Third, is there any constraint on Korean EPCs? For example, can any nominal show up in an EPC as a PM? Similarly, is there any restriction on the sentential predicate of an EPC? In what follows, I provide possible answers to these questions, in addition to deriving the truth conditions for two sentences that instantiate EPCs in Korean.

##### 4.1 Deriving the truth conditions for Korean EPCs

In this paper, I would like to explore the possibility that, in an EPC, the lexical sentential predicate undergoes type-shifting and what triggers this operator is the syntactic position of the PR argument, i.e., the fact that it occurs external to the PM nominal. More concretely, a relational nominal has its own argument structure, but by occurring in an EPC, where its PR is external to it, its argument is left unsaturated, and this unsaturated argument is inherited by the predicate when it takes the PM as its syntactic complement, as have been also suggested by authors like Yoon (1989, 1990) and Yoon (1998).

From a semantic point of view, this phenomenon is reminiscent of the type-shifting operation that verbs like *seem* and *expect* undergo in raising constructions in English expounded in works like Partee 1973 and Thomason 1976: according to Partee (1973) and Thomason (1976), one can base-generate both the raising structure and the non-raising structure and create a pair of lexically related matrix verbs via a lexical raising rule in the sense of Dowty (1976). In other words, one can derive “syntactic raising” via “semantic lowering”, as Partee (2000: 1) puts it.

Inspired by Partee’s (1973) and Thomason’s (1976) analyses of raising constructions in English, I propose that, in Korean EPCs too, the sentential predicates are type-shifted. As a result, an ordinarily mono-transitive verb like *ttayli-* ‘to hit’ is shifted to a functor of type  $\langle\langle e \langle et \rangle \rangle, \langle e \langle et \rangle \rangle\rangle$ . Similarly, an adjective such as *yepu-* ‘be.pretty’, which acts like an intransitive verb in terms of morphosyntax in Korean, is turned into a functor of type  $\langle\langle e \langle et \rangle, \langle et \rangle \rangle$ .

Turning now to deriving the truth conditions for some sample Korean external possession sentences, first, below, I will assume the following inventory, which is taken from Partee 2000: 1:

##### (32) Categories, types, and variables that we need

Category	Type	Variable(s) of that type	Notes
plain VP or AP	$\langle et \rangle$	$P$	e.g., <i>pretty</i>
referential DP	$e$	$x, y$	<i>John</i>
transitive verbs	$\langle e \langle et \rangle \rangle$	$R'$	<i>hit</i>
relational noun	$\langle e \langle et \rangle \rangle$	$R$	<i>arm (of), mother (of)</i>



Turning now to type shifting the verb *ttayli-* meaning ‘to hit’ in Korean, we can obtain a desirable outcome in the following fashion. (Note: For expository purposes, here and below, I will keep using English glosses for the Korean inputs.)

(33) Deriving the denotation of the type-shifted **hit** (adapted from Partee (2000:3)):<sup>13</sup>

- (i) **hit**<sub>1</sub>’: type  $\langle e \langle et \rangle \rangle$ . Equivalently:  $\lambda y \lambda x. \mathbf{hit}_1'(y)(x)$   
(ii) **hit**<sub>2</sub>’(arm)(y)(x)  $\equiv$  **hit**<sub>1</sub>’(y’s arm)(x)

More formally and generally,

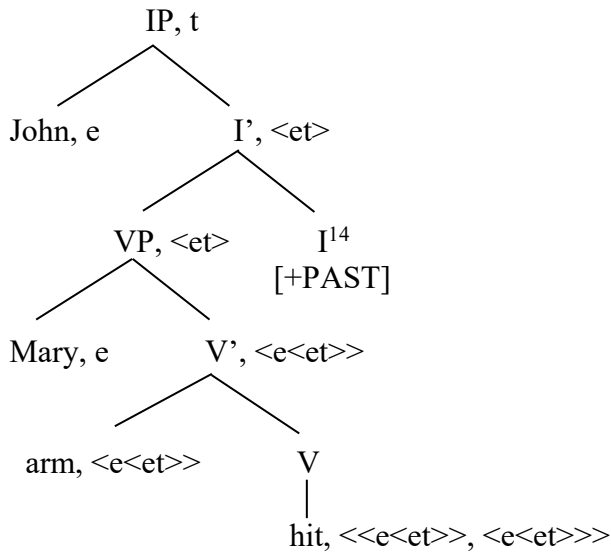
- (iii) **hit**<sub>2</sub>’(R)(y)(x)  $\equiv$  **hit**<sub>1</sub>’(tz[R(y)(z)])(x)

Therefore,

- (iv) **hit**<sub>2</sub>’  $\equiv$   $\lambda R \lambda y \lambda x. \mathbf{hit}_1'(tz[R(y)(z)])(x)$

(34) Derivation of the truth conditions for the MAC *John-i Mary-lul phal-ul ttayli-ss-ta*:

a. LF representation:



b. Computation of the truth conditions:

[[ (34a) ]]  $\equiv$

- (i)  $(\mathbf{hit}_2(\mathbf{arm}))(\mathbf{Mary})(\mathbf{John}) \equiv$  (by def. of **hit**<sub>2</sub>’)  
(ii)  $\lambda R. \lambda y. \lambda x. \mathbf{hit}_1'(tz[R'(y)(z)])(x)(\mathbf{arm}')(\mathbf{Mary})(\mathbf{John}) \equiv$  (by  $\lambda$ -reduction)  
(iii) **hit**<sub>1</sub>’(tz[arm’(Mary)(z)])(John)

Given (34biii), the sentence *John-i Mary-lul phal-ul ttayli-ess-ta* will be true if and only if (iff.) John hit the unique  $z$  such that  $z$  is Mary’s arm. This seems to match Korean

<sup>13</sup> I thank Barbara H. Partee for helping me with the type-shifting analysis of ‘hit’ presented here.

<sup>14</sup> In this paper, for expository simplicity, I ignore the semantic contributions of tense and aspect.

speakers' intuitions about the meaning of the sentence (modulo the focus meanings on 'Mary' or 'arm' that one can detect, depending on how they read the sentence).

Turning now to deriving the truth conditions for the MNC *Mary-ka emma-ka yeppu-ta*,<sup>15</sup> which can be construed as meaning 'It is Mary whose mother is pretty', to begin with deriving the definition for the shifted adjective first:

(35) Definition of type-shifted **pretty**:

- i) type of plain **pretty**' or **pretty**'<sub>1</sub>:  $\langle e, t \rangle$                       Equivalently  $\lambda x. \mathbf{pretty}'(x)$   
 ii) **pretty**'<sub>2</sub>(mother)(x)  $\equiv$  **pretty**'<sub>1</sub>(x's mother)

More formally and generally,

- iii) **pretty**'<sub>2</sub>(R)(x)  $\equiv$  **pretty**'<sub>1</sub>( $\iota z[R'(x)(z)]$ )

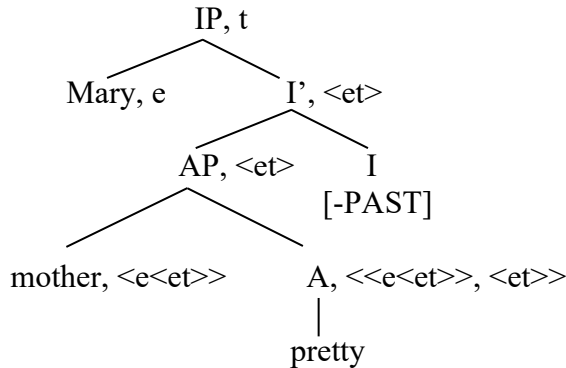
Therefore,

- iv) **pretty**'<sub>2</sub>  $\equiv$   $\lambda R \lambda x. \mathbf{pretty}'_1(\iota z[R'(x)(z)])$

Now to compute the truth conditions for the entire sentence:

(36) Derivation of the truth conditions for the MNC *Mary-ka emma-ka yeppu-ta*:

a. LF representation:



b. Computation of the truth conditions:

[[ (36a) ]]  $\equiv$

- i) (**pretty**'<sub>2</sub>(mother))(Mary)  $\equiv$  (by def. of **pretty**'<sub>2</sub>)  
 ii)  $\lambda R. \lambda x. \mathbf{pretty}'_1(\iota z[R'(x)(z)])(\mathbf{mother})(\mathbf{Mary})$   $\equiv$  (by  $\lambda$ -reduction, twice)  
 iii) **pretty**'<sub>1</sub>( $\iota z[\mathbf{mother}'(\mathbf{Mary})(z)]$ )

Given what we have obtained in (36biii), the sentence will be true iff. the unique individual  $z$  such that  $z$  is Mary's mother is pretty. And this approximates what Korean speakers would intuit as the meaning of this sentence (though it does not capture the identificational focus meaning that one detects with *Mary-ka*.)

<sup>15</sup> To be more fully adequate, this sentence should contain the honorific marker *-si*, which occurs on the sentential predicate before the sentence ending, as we have seen in (2c) and (3c), but for simplicity, I ignore this fact here.



description. In other words, these sentences will become markedly degraded in acceptability if they are uttered in a context where the individual denoted by the PM is physically detached from Mary. For example, as Yeon (1999) points out, (38b) will be ungrammatical if John tore Mary's clothes but they were hanging in the closet at the time of the tearing event.

What these data illuminate to us, then, is that what matters is not whether the PM at issue is a BPN or not, but rather whether its denotation is *physically attached* to the PR or not at the time of the event.

When approached from this perspective, the observations that numerous authors have made about the BPN constraint on MACs merit revision, but what some of them have stated about the role of *affectedness* still holds. I therefore conclude that in licensing MACs in Korean, something like what Yeon (1999) calls *physical contiguity* between the PM and the PR plays an important role.

This revised generalization seems empirically adequate but comparing (38) with (39) leads us to see that we also need to consider two additional factors. First, the PM should be a part of the PR, not the other way around; that is, it cannot be just any type of possessum. Second, the PM must be a part of the PR *even after* the event described by the sentence has culminated.

- (39) a. \*Keyngchal-i            **Mary-lul**    **cha-ul**    swusaykha-yess-ta.  
          Police-NOM            Mary-FOC   car-ACC    inspect-PAST-DEC  
          Intended: 'It was Mary whose car the police searched, directly affecting her.'
- b. \*John-i            **Mary-lul**    **shinpal-ul**    tenci-ess-ta.  
          John-NOM    Mary-ACC    shoe-ACC    throw.away-PAST-DEC  
          Intended: 'It was Mary whose shoe(s) John threw away, directly affecting her.'

Combining these series of observations, then, I offer (40) as a licensing condition for MACs in Korean.

- (40) A licensing condition for an MAC in Korean:  
 For an MAC to be licensed, there must be a physical contiguity between the denotation of the PM and that the PR even after the event described by the sentence culminates, not to mention during the development of the event, and the PM should be a part of the PR, not the other way around.<sup>16</sup>

### 4.3.2 Constraints on predicates

Turning now to discussing what kinds of constraints are imposed on the predicates of EPCs, in what follows, I provide three factors that can be attributed to the varying degrees of grammaticality of MAC-type sentences in Korean.

First, one can generalize that normally, action verbs that have a physical affect on the PM, such as 'to hit', 'to kick', 'to pinch', 'to grab', and 'to step on', are most frequently

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<sup>16</sup> At present, I do not have a satisfactory way to formally capture this descriptive generalization; however, one thing that seems clear is that, for a Korean MAC to be judged felicitous or grammatical, it must be the case that applying the meaning of the verb to the PM's denotation should *pragmatically* count as applying the meaning of the verb to the PR's denotation. I leave verifying this idea against a wider range of data and formally implementing it—if it turns out to be correct—to future research.

used in an MAC. (The reader can readily verify this by reconsidering the examples presented in this paper, so I will not provide the relevant data here.)

This generalization faces an empirical challenge, however, because some action verbs such as ‘to wash’ and ‘to cut’ cannot occur in Korean EPCs, as shown in (41).

- (41) a. \*John-i        **Mary-lul**        **elkwul-ul**        ssis-ess-ta.  
           John-NOM    Mary-FOC        face-ACC        wash-PAST-DEC  
           Intended: ‘It was Mary whose face John washed.’
- b. \*John-i        **Mary-lul**        **sonthop-ul**        kkak-ass-ta.  
           John-NOM    Mary-FOC        fingernail-ACC    cut-PAST-DEC  
           Intended: ‘It was Mary whose fingernails John cut.’

Why are these sentences ungrammatical (whereas those in (37a) and (38) are grammatical)? My tentative answer is that this is due to the lexical idiosyncrasies of the predicates involved: in Korean, they are intrinsically *reflexive* verbs in the sense of Reuland and Reinhart (1993). Consequently, their meanings cannot be applied to an individual that is different from the subject.

One reason for thinking this way comes from the fact that the predicates *elkwul-ul ssis-ta* ‘to wash face’ and *sonthop-ul kkak-ta* ‘to cut finger nail’ can occur even without the anaphoric determiner *casin-uy* ‘self-GEN’ modifying the PM nominals, obligatorily receiving reflexive interpretations, as shown in (42). Furthermore, when the anaphor *casin* is replaced by other expressions such as *Mary* or *kunye* ‘she’, the GEN-marked PRs cannot be omitted if one is to convey the intended meanings, as shown in (43).

- (42) a. John-i        **(casin-uy)**        **elkwul-ul**        ssis-ess-ta.  
           John-NOM    (SELF-GEN)        face-ACC        wash-PAST-DEC  
           ‘John<sub>i</sub> washed his<sub>i</sub> face.’
- b. **John-i**        **(casin-uy)**        **sonthop-ul**        kkak-ass-ta.  
           John-NOM    (SELF-GEN)        fingernail-ACC    cut-PAST-DEC  
           ‘John<sub>i</sub> cut his<sub>i</sub> fingernails.’
- (43) a. John-i        **\*(Mary-uy)**        **elkwul-ul**        ssis-ess-ta.  
           John-NOM    (Mary-GEN)        face-ACC        wash-PAST-DEC  
           Intended: ‘John washed Mary’s face.’
- b. **John-i**        **\*(kunye-uy)**        **sonthop-ul**        kkak-ass-ta.  
           John-NOM    (she-GEN)        fingernail-ACC    cut-PAST-DEC  
           Intended: ‘John cut her (not his own) fingernails.’

One other thing to note here is that the predicates used in data like (42)-(43) seem to be subject to what we can tentatively call *anti-affectedness condition*. One reason to think so is that even the anaphoric PRs in data like (42) cannot occur separated from their PMs, instantiating what can be considered an EPC, as shown in (44). Relatedly, what is also notable here is that the data in (41) can be made perfect if the benefactive morpheme *cwu-* occurs on the sentential predicates, as shown in (45). And since the morpheme *cwu-* can be analyzed as altering the argument structure of the original predicate by adding an

applicative argument, we can conclude that the predicates appearing in (41) simply lack the ability to take a PR argument that occurs external to the PM argument.

- (44) a. John-i        (**\*casin-ul**)        **elkwul-ul**        ssis-ess-ta.  
 John-NOM    (**\*SELF-FOC**)        face-ACC        wash-PAST-DEC  
 Intended: ‘John washed self’s face.’  
 b. **John-i**        (**\*casin-lul**)        **sonthop-ul**        kkak-ass-ta.  
 John-NOM    (**\*SELF-FOC**)        fingernail-ACC        cut-PAST-DEC  
 Intended: ‘John cut self’s fingernails.’

- (45) a. John-i        **Mary-lul**        **elkwul-ul**        ssise-cwu-ess-ta.  
 John-NOM    Mary-FOC        face-ACC        wash-BEN-PAST-DEC  
 Intended: ‘John washed Mary’s face for her.’  
 b. John-i        **Mary-lul**        **sonthop-ul**        kkaka-cwu-ass-ta.  
 John-NOM    Mary-FOC        fingernail-ACC        cut-BEN-PAST-DEC  
 Intended: ‘John cut Mary’s fingernail for her.’

In sum, then, the data in (41)-(45) show that in licensing an external possession sentence in Korean, the argument structure of the sentential predicate also plays a role, and the role that it plays is of a grammatical nature than of a pragmatic one.

In a similar vein, I would like to note that the agentivity of the subject plays a role in licensing an external possession sentence in Korean as well. To see this, consider (46).

- (46) a. \*John-i        **Mary-lul**        **elkwul-ul**        po-ass-ta.  
 John-NOM    Mary-FOC        face-ACC        see-PAST-DEC  
 Intended: ‘It was Mary whose face John saw.’  
 b. John-i        **Mary-lul**        **elkwul-ul**        cheta-po-ass-ta.  
 John-NOM    Mary-FOC        face-ACC        up-look-PAST-DEC  
 Intended: ‘It was Mary whose face John looked at.’ (Lit.: ‘John looked up at Mary on the face’.)

In (46a), the thematic role that the subject *John-i* receives from the verb *po-ta* ‘to see’ is *Experiencer*, whereas, in (46b), the thematic role that the subject receives from the verb *cheta-po-ta* ‘to look up at’ is *Agent*. Since this is the only difference between the two sentences in (46), we are led to conclude that the agentivity versus non-agentivity of the subject is responsible for their different grammaticalities.

Finally, I should point out that, even in (46b), the PR is not directly affected by the action done by the subject. Given this, the conclusion we are led to draw here is that what has been characterized as *affectedness* is neither a sufficient nor a necessary condition for licensing external possession sentences in Korean.

### 4.3.3 Summary

In this subsection, I have suggested two sets of constraints on MAC-type EPCs in Korean. One set applies to the PMs and the other applies to the predicates, and they can be summarized as follows:

(47) Constraints on MAC-type EPCs in Korean:

- a. The PM of an MAC is physically attached to the PR when the event under description culminates, as well as during the entire time the event described by the sentence develops, and the PM should be a part of the PR, not the other way around.
- b. The predicate of the sentence is both non-reflexive and strongly agentive.

#### 4.4 Differences between MACs and MNCs in Korean

Up to this point, our discussion has been confined to MACs, and this is because, unlike MACs, MNCs in Korean is not subject to any constraint, at least as far as I can see.

For example, as we have observed, in an MAC, the PM must meet certain conditions. In contrast, in an MNC, essentially any kind of PM can occur. To see this, consider (48).

- (48) a. **Mary-ka emeni-ka yeppu-ta.**  
 Mary-FOC mother-NOM be.pretty-DEC  
 ‘It is Mary whose mother is pretty.’
- b. **Mary-ka cha-ka oycey-i-ta.**  
 Mary-FOC mother-NOM foreign.made-COP-DEC  
 ‘It is Mary whose car is imported from a foreign country.’

As exemplified earlier, kinship terms like *emeni* ‘mother’ and non-relational nouns like *cha* ‘car’ cannot occur in MACs. Hence, the question is: why can they occur in MNCs?

In answer to this question, I hypothesize that the difference between the two types of EPC in Korean has to do with what Hirotani (2000) characterizes as the “aboutness” condition on MNCs in Japanese. In brief, in an MNC, the highest PR is what the sentence is *about*, so any type of PM can in principle occur in the sentence, provided that the combination of the PM and the lexical predicate of the sentence predicates something *of* the PR.<sup>17</sup>

<sup>17</sup> This difference between Korean (or Japanese) MNCs and MACs does not seem to be a language-specific phenomenon. Evidence comes from Mohawk: According to Baker (1999), Mohawk has five types of EPC and among them, two are derived via noun incorporation. Importantly, Baker notes that, when an EPC in Mohawk is derived by noun incorporation, it is normally the case that only BPNs can appear in object position, but there is no such restriction on subject position. This contrast is illustrated by the data in (i) and (ii), which respectively involve transitive verbs and an intransitive verb.

(i) EPC involving object position:

- a. **Wa’-khe-hsin-óhare-’.**  
 FACT-1SG:SUBJ/FEM:SG:OBJ-leg-wash-PUNC  
 ‘I washed her leg.’

(Baker 1999: ex. (3), citing from Michelson 1991: sec. 4)

- b. **\*Wa-hi-’sere-ht-óhare-’.**  
 FACT-1SG:SUBJ/MASC:SG:OBJ-car-NOM-wash-PUNC  
 ‘I washed his car’.

(Baker 1999: ex. (5), citing from Mithun 1995: 644; Michelson 1991: 760)

(ii) EPC involving subject position:

- Ro-[a]nitskwara-tsher-a-hnir-u.  
 (NEUT:SG:SUBJ)/MASC:SG:OBJ-chair-NOM-Ø-be.hard-STAT  
 ‘His chair is hard.’

Let me also note that in MNCs, there is virtually no restriction on the sentential predicates, either; for example, the predicate can be stage (S)-level or individual (I)-level, or it can bear perfect/perfective or imperfective morphology, as shown in (49)-(50).

- (49) a. Mary-ka      elkwul-i      **yeppu-ta.**      (I-level)  
       Mary-FOC      face-FOC      be.pretty-DEC  
       ‘Mary has a pretty face.’ or ‘It is Mary who has a pretty face.’  
       b. Mary-ka      hwa-ka      **na-ass-ta.**      (S-level)  
       Mary-FOC      anger-FOC      arise-PAST-DEC  
       ‘Mary is angry.’ or ‘It is Mary who is angry.’
- (50) a. Mary-ka      chip-i      **pwulta-ass-ta**      (Perfect)  
       Mary-FOC      house-NOM      burn-PERF-DEC  
       ‘It is Mary whose house has been burnt down.’  
       b. Mary-ka      chip-i      **pwulta-ko iss-ta**      (Imperfective)  
       Mary-FOC      house-NOM      burn-COMP      AUX-DEC  
       ‘It is Mary whose house is on fire.’

Again, the absence of a predicate restriction on MNCs in Korean can be attributed to the *aboutness condition*. That said, at present, we do not know whether there are additional factors playing a role too or not, and if so, whether they stem from grammatical sources or from purely pragmatic sources.

## 5 Conclusion

As mentioned in the introduction, I would like to conclude this paper by comparing the present analysis with previous work on the Korean external possession phenomenon, followed by pointing out some remaining issues.

### 5.1 Comparison with previous analyses

The issues surrounding the Korean external possession phenomena fall into two types: (i) issues pertaining to extra Case-licensing, and (ii) those pertaining to the grammatical statuses of the PR and the PM.

Obviously, these two sets of issues are interconnected. But most previous analyses have been primarily concerned with the first set of issues. For example, Kim (1989, 1990) appeals to Case concord between nominals that are associated with each other. This analysis faces an empirical challenge, however, because there are cases where the PR and the PM do not necessarily agree in Case, as we have observed in (9c) and (10). On the other hand, Cho (1998) postulates the presence of the functional-head KP in the sense of Bittner and Hale (1996). Cho’s analysis is also problematic, however, because it cannot provide a satisfactory answer as to why in certain instances the PR and the PM may not agree in Case. In addition, it posits numerous movements to derive a syntactic structure that

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(Baker 1999: ex. (2), citing from Michelson 1991: fn. 2)

The Mohawk facts noted above suggest that there may be more languages that exemplify similar type of asymmetry between objection position and subjection position in EPCs. Hence, there arises a need for further typological investigation. But I must leave that task to future research.



contains multiple PMs (see Cho's work for details). So, in view of the principle of Economy of Derivation, it is not so desirable, either, though this can be more of a theory-internal problem.

The present can readily capture the "Case" disagreement between the PR and the PM of an EPC, because it posits that structural case markers in Korean are homophonous with focus markers, so they can be ambiguous, depending on the information structure of the sentence. The present approach is arguably more economical as well because all PMs and PRs are base-generated in the syntactic position they are pronounced at.

Turning now to the other outstanding issue which concerns the grammatical status of the PM of an EPC: as far as I know, the argument versus adjunct status of a PM has been among the most heatedly debated topics in the literature. Even so, except for H.-S. Yoon (1989, 1990) and J.-M. Yoon (1989),<sup>18</sup> authors are not so clear about their exact stand on the matters at hand.

In the present paper, I have offered evidence in favor of an argument analysis of PMs such as H.-S. Yoon's (1989), and the syntactic analysis I have offered is similar to his as well. But I believe that the proposed analysis has made some progress in at least two aspects. First, while the existing analyses including Yoon (1989, 1990) investigate only MACs, the present study deals with all three types of EPCs including MDCs and MNCs. Second, unlike the previous studies, the present study offers some compelling reasons to treat some PMs in Korean EPCs as syntactic complements or as even true internal arguments of the sentential predicate. In addition, it also explicitly discusses which PMs are better treated as syntactic adjuncts.

With that said, there is one adjunct analysis of PMs that is worth looking at, namely, Kim 1989: Kim argues that a PM is some sort of adjunct which modifies the predicate. Although she does not fully develop this idea within a formal semantic framework, one way to implement it would be to analyze a PM as an endocentric adjunct operator. That is, it converts predicates of type  $\langle e, et \rangle$  (e.g., **hit**) and  $\langle et \rangle$  (e.g., **pretty**) into predicates of type  $\langle \langle e, et \rangle \rangle$ ,  $\langle e, \langle et \rangle \rangle$  and  $\langle \langle et \rangle \rangle$ ,  $\langle et \rangle$ , respectively. And in this process, the relationality of the PM gets transmitted through the sentential predicate and as a result, the PM gets "reconnected" with its PR.

Adopting such a mechanism will generate truth conditions that are identical to what we have derived for some of the MAC sentences in section 4.1. Given this, it is not clear which approach should be adopted in the end. But there seem to be more reasons to adopt a complement analysis for at least some PMs, rather than treating all PMs as syntactic adjuncts.

First, as illustrated in (15)-(16), the PMs of some external possession sentences are not optional; if they were true adjuncts, then they should be readily omissible, without affect grammaticality. Second, as we have observed, in licensing EPCs in Korean, the semantics of predicates plays an important role. If all PMs were just adjunct operators, then it remains unexplained why the predicative meaning which results from combining the lexical predicate of the sentence with that of the PM should play such a significant role. Third, under a PM as-an-adjunct-operator approach, the difference between MACs and MNCs with regards to their restrictions will be harder to explain because operators should behave similarly regardless of their syntactic positions. Fourth, if PMs were true adjuncts,

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<sup>18</sup> These authors claim that the PM of an MAC is base-generated as sister to the verb. And this implies that they treat the PM as an argument of the verb, rather than an adjunct thereof.

it is not clear why they never surface with an oblique case-marking on them, unlike the way other types of verb modifiers behave in Korean, as we saw in (21). Finally, if all PMs were true adjuncts, then they should exhibit more syntactic freedom, contrary to fact.

## 5.2 Additional remaining issues

Apart from what I have just pointed out, there are at least two outstanding issues that I must leave for future work.

First, as I have suggested in several places, there is little doubt that cognitive, pragmatic, and/or information structural factors play a role in Korean external possession phenomena, but exactly how to derive their effects within a formal semantic framework is an outstanding issue.

Second, under the semantic analysis we have explored, there is no truth-conditional semantic difference between an EPC and its corresponding IPC. Yet Korean speakers intuit that the two constructions do not mean the same. Given this, precisely how and why EPCs and IPCs have different semantics need to be more fully articulated in future research, and in this process, what I have offered in footnote 16 should be verified as well.

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